

CLAIMS

I claim:

1. A shutter system for covering an opening in a wall of a building, the shutter system comprising:

a mounting assembly that includes at least one pair of guide tracks, each pair of guide tracks being mountable to the building on opposing sides of the opening, each guide track including a plurality of inner surfaces that define a guide channel, two of the inner surfaces opposing one another and at least one of said two, opposing inner surfaces including at least one protruding member that extends into the guide channel and angles away from an open end of the guide channel; and

a barrier assembly that includes a plurality of interlocking flexible slats, at least some of the slats defining at least one angled recess constructed to accommodate unobstructed passage of the slats in the guide channel during deployment and retraction of the barrier assembly and further constructed to enable the slats to engage the at least one protruding member of the guide track and thereby retain the slats in the guide channel in the event that the slats are deflected due to exertion of a displacement force against the barrier assembly.

2. The shutter system of claim 1, wherein each guide track further includes a pair of guide rails extending along a length of the guide track, the guide rails being disposed on the two, opposing inner surfaces of the guide track proximate the open end of the guide channel and extending into the guide channel, wherein at least some of the slats further define at least a second recess constructed to enable the slats to engage at least one of the guide rails to assist in retaining the slats in the guide channel in the event that the slats are deflected due to exertion of the displacement force against the barrier assembly.
3. The shutter system of claim 1, further comprising a motorized roller constructed and arranged to retain the barrier assembly in a rolled configuration until deployment is desired and to deploy the barrier assembly upon activation by a user such that the plurality of slats pass through the guide tracks to cover the opening.
4. The shutter system of claim 1, wherein at least one of the plurality of slats and the at least one pair of guide tracks is fabricated from an aluminum alloy.
5. The shutter system of claim 1, wherein the inner surface from which the at least one protruding member extends and an inner, angled surface of the at least one protruding member form an angle in the range of about 45 degrees to about 75 degrees.

6. A barrier assembly for use in a shutter system that includes at least one pair of guide tracks mounted on opposing sides of an opening in a wall of a building, each guide track including a plurality of inner surfaces that define a guide channel, two of the inner surfaces opposing one another and at least one of said two, opposing inner surfaces including at least one protruding member that extends into the guide channel and angles away from an open end of the guide channel, the barrier assembly comprising:

a plurality of interlocking flexible slats, at least some of the slats defining at least one angled recess constructed to accommodate unobstructed passage of the slats in the guide channel during deployment and retraction of the barrier assembly and further constructed to enable the slats to engage the at least one protruding member of the guide track and thereby retain the slats in the guide channel in the event that the slats are deflected due to exertion of a displacement force against the barrier assembly.

7. The barrier assembly of claim 6, wherein the plurality of slats are fabricated from an aluminum alloy.

8. A barrier assembly for use in a shutter system that includes at least one pair of guide tracks mounted on opposing sides of an opening in a wall of a building, each guide track including a plurality of inner surfaces that define a guide channel, two of the inner surfaces opposing one another and at least one of said two, opposing inner surfaces including at least one protruding member that extends into the guide channel and angles away from an open end of the guide channel, each guide track further including a pair of guide rails extending into the guide channel along a length of the guide track and being disposed on the two, opposing inner surfaces of the guide track proximate the open end of the guide channel, the barrier assembly comprising:

a plurality of interlocking flexible slats, at least some of the slats defining at least one angled recess constructed to accommodate unobstructed passage of the slats in the guide channel during deployment and retraction of the barrier assembly and further constructed to enable the slats to engage the at least one protruding member of the guide track and thereby retain the slats in the guide channel in the event that the slats are deflected due to exertion of a displacement force against the barrier assembly, at least some of the slats further defining at least a second recess constructed to enable the slats to engage at least one of the guide rails to further assist in retaining the slats in the guide channel in the event that the slats are deflected due to exertion of the displacement force against the barrier assembly.